Perceived Stigma and Barriers to Mental Health Care Utilization Among OEF-OIF Veterans

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Objective: **This study examined whether social support and beliefs about mental health care are associated with stigma, barriers to care, and mental health care utilization in a sample of veterans of Operation Enduring Freedom in Afghanistan and Operation Iraqi Freedom (OEF-OIF).** ***Methods:*** **A sample of 272 predominantly reservist and National Guard OEF-OIF veterans in Connecticut completed a needs assessment survey.** ***Results:*** **Negative beliefs about mental health care, particularly psychotherapy, and decreased perceived unit support predicted increased perceptions of stigma and barriers to care. Negative beliefs about mental health care were also associated with decreased likelihood of mental health counseling and medication visits in the past six months, even after adjustment for demographic characteristics, psychiatric disorders, and support variables.** ***Conclusions:*** **Educational interventions for modifying negative beliefs about mental health care and bolstering unit support may help decrease stigma and barriers to care and increase mental health treatment seeking among OEF-OIF veterans. (*Psychiatric Services* 60: 1118–1122, 2009)**

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Despite high rates of mental health problems among soldiers returning from Operation Enduring Freedom in Afghanistan and Operation Iraqi Freedom (OEF-OIF), concerns about stigma and barriers to receiving mental health care tend to be elevated in this population (1). Of note, soldiers who screen positive for a psychiatric disorder are twice as likely as those who do not screen positive to report concerns related to stigma and to barriers to care (1).

A number of risk factors and protective factors are associated with stigma and barriers to care. Related to increased stigma and barriers to care are demographic factors, such as younger age, male gender, and nonwhite race (2–4); psychiatric conditions, such as posttraumatic stress disorder (PTSD), depression, anxiety, and alcohol use problems (1,5); and negative attitudes about health care (6). Service type (active duty versus military reserves and the National Guard) may also be associated with barriers to care, because active-duty soldiers are more likely to experience combat-related psychopathology (7). Protective factors, such as marriage (3) and social support (2), may help to counteract these influences, decrease stigma and barriers to care, and promote utilization of mental health services.

The purpose of this study was, first, to examine whether OEF-OIF veterans who meet screening criteria for PTSD, depression, or an alcohol use problem endorse greater perceived stigma and barriers to care than OEF-OIF veterans who do not meet these criteria and second, to use a multivariate approach to examine potentially modifiable risk factors and protective factors of perceived stigma, barriers to care, and mental health care utilization. We hypothesized that lower perceptions of social support and negative beliefs about mental health care would be associated with increased perceived stigma and barriers to care and lower likelihood of mental health service utilization.

Methods

Participants were drawn from the first of two waves of the Connecticut OEF-OIF Veterans Needs Assessment Survey, which sought to identify salient needs of this population and provide recommendations for legislative and public policy initiatives to im-

prove readjustment to civilian life. A total of 1,050 OEF-OIF veterans (both active duty and in the National Guard or military reserves) who served between January 1, 2003, and March 1, 2007, were identified alphabetically from a review of Connecticut Veterans Registry copies of discharge papers by the Connecticut Department of Veterans Affairs (VA). To maintain confidentiality, surveys were addressed and mailed by the Connecticut Department of Veterans Affairs. A total of 1,050 surveys were mailed and 285 were returned, for an overall return rate of 27%; complete data were available for 272 respondents. Those who responded were older than nonrespondents in the sampling frame (34.9 versus 31.3 years) ($t=5.04$, $df=1,048$, $p<.001$). The mean±SD time between return from deployment and survey completion was 26.9±.7 months. Institutional review boards of Yale University, Central Connecticut State University, and the VA Connecticut Healthcare System approved the study. A waiver of informed consent was obtained because of the anonymous nature of the survey.

We used Perceived Stigma and Barriers to Care for Psychological Problems, an instrument that assesses stigma (six items; sample item: "My leaders would blame me for the problem") and obstacles that prevent or dissuade individuals from seeking mental health treatment (five items; sample item: "It is difficult to schedule an appointment"). Responses range from strongly agree to strongly disagree, with mean ratings for each summary scale serving as outcome measures (8). Possible scores range from 1, strongly disagree, to 5, strongly agree, with higher scores indicating greater perceptions of stigma and barriers to care. Factor analysis with varimax rotation yielded the same two-factor solution as found by Britt and colleagues (8). Cronbach's alphas for the subscales on stigma and barriers to care were .91 and .74, respectively.

Two questions were asked regarding mental health care utilization: "Over the past six months, how many visits have you made to a mental health professional for counseling?" and "Over the past six months, how many visits have you made to a mental health professional for medication?" Responses were zero, one to two, three to five, and six or more visits. Responses were dichotomized for analyses as either no visits or one or more visits.

The Posttraumatic Stress Disorder Checklist–Military Version is a 17-item screening instrument based on *DSM-IV* criteria for PTSD. A positive PTSD screen was identified by total scores of 50 or higher and endorsement of each of three *DSM-IV* criteria required for a diagnosis of PTSD (cluster B, intrusive; cluster C, avoidance or numbing; and cluster D, hyperarousal). Cronbach's alpha on these items was .96.

The Patient Health Questionnaire–9 is a nine-item screening instrument for depression derived from the clinician-administered Primary Care Evaluation of Mental Disorders. Scores of 15 or higher indicate a positive screen for depression. Cronbach's alpha on these items was .92.

The CAGE Questionnaire is a four-item instrument used to identify individuals with a possible alcohol problem. Despite its brevity, it has been shown to have good validity in screening large populations. A score of 2 or higher indicates a possible alcohol problem. Cronbach's alpha was .72.

The Unit Support Scale is a 12-item instrument from the Deployment Risk and Resilience Inventory (DRRI) (9) that assesses the nature of professional relationships and cohesion between the soldier and his or her unit. Items include "My unit was like a family to me," "I could go to most people in my unit for help when I had a personal problem," and "My superiors made a real attempt to treat me as a person." Cronbach's alpha on these items was .93.

The Postdeployment Social Support Scale is a 15-item measure from the DRRI (9) that assesses the extent to which family, friends, coworkers, employers, and community provide postdeployment emotional support and instrumental assistance. Cronbach's alpha on these items was .82.

The Connor-Davidson Resilience Scale is a 25-item self-report assessment of psychological resilience (10). Total scores were used in this study. Cronbach's alpha on these items was .94.

From the Beliefs About Psychotropic Medications and Psychotherapy measure (11), three items assessing beliefs about psychotropic medications and three assessing beliefs about psychotherapy were included in this survey. Cronbach's alpha on these items was .76. We scored items such that higher scores indicated more negative beliefs about mental health care.

Nonnormally distributed variables were transformed with logarithmic base-10 transformations. Using univarate analysis of variance and chi square tests, we compared by screening group (those who met screening criteria for PTSD, depression, or alcohol use problems versus those who did not) the demographic characteristics and frequency of endorsement of each item on stigma and barriers to care. Logistic regression analyses were used to estimate odds ratios for the association between screening positive for a psychiatric disorder and endorsement of each item on stigma and barriers to care as well as to examine predictors of utilization of mental health counseling and medication services in the previous six months. Two hierarchical linear regression analyses separately examined predictors of stigma and barriers-to-care scores. Step 1 included demographic variables (age, sex, race or ethnicity, education, relationship status, and type of service duty), step 2 included psychopathology variables (positive screen for PTSD, depression, or an alcohol use problem), step 3 included potentially protective factors (Unit Support Scale, Postdeployment Social Support Scale, and Connor-Davidson Resilience Scale), and step 4 included a measure of beliefs about mental health care.

Results

The age of the sample was 34.9±.4; 87% (N=236) of the sample were white, 5% (N=14) were African American, 5% (N=14) were Latino, .4% (N=1) were Asian American, and 3% (N=7) were Native American or of other race or ethnicity. Eighty-five percent (N=232) completed at least

Table 1

Predictors of perceived stigma and barriers-to-care scores among veterans of Operations Enduring Freedom and Iraqi Freedom

Variable	F[a]	R^2	β	t	p
Perceived stigma					
Step 1	.40	.01			
Age			.04	.59	.55
Race or ethnicity (white versus other)			–.07	1.12	.27
Education (no college versus college)			.06	.93	.35
Relationship status (no versus yes)			.12	1.77	.08
Duty type (reserve versus active)			–.03	.46	.65
Step 2[b]	2.37	.11			
Positive posttraumatic stress disorder screen			.07	.91	.37
Positive depression screen			–.05	.66	.51
Positive alcohol problem screen			.06	.94	.35
Step 3[b]	4.36	.18			
Unit support[b]			–.23	3.29	.001
Postdeployment social support			–.07	.88	.38
Resilience			–.08	.96	.34
Step 4: negative beliefs about mental health care[b]	9.64	.38	.49	7.22	<.001
Barriers to care					
Step 1	1.64	.02			
Age			–.09	1.17	.24
Race or ethnicity (white versus other)			–.06	.95	.34
Education (no college versus college)			–.05	.81	.42
Relationship status (no versus yes)			.00	.02	.98
Duty type (reserve versus active)			.04	.54	.59
Step 2[b]	3.23	.10			
Positive posttraumatic stress disorder screen			.09	1.10	.27
Positive depression screen			.08	.98	.33
Positive alcohol problem screen			.00	.03	.97
Step 3[b]	3.31	.13			
Unit support[b]			–.17	2.28	.024
Postdeployment social support			–.01	.06	.95
Resilience			.01	.11	.91
Step 4: negative beliefs about mental health care[b]	6.45	.28	.42	5.78	<.001

[a] Degrees of freedom=12 and 236

[b] Statistically significant association with the dependent variable (p<.05)

some college education. Seventy-four percent were in the National Guard or reserves (128 in the National Guard; 73 reservists), and 26% (N=71) were on active duty, with 91% (N=248) in the Army, 4% (N=12) Marines, 1% (N=3) Air Force, .7% (N=2) Navy, and 3% (N=7) serving multiple branches of the military. Ninety-two percent of the sample (N=250) reported having health insurance. The group who screened positive for a psychiatric disorder was younger than the group who did not (34.6±.9 versus 38.0±.8; F=7.42, df=1 and 267, p=.007) but did not differ with respect to any other demographic variables.

The group who screened positive for a psychiatric disorder scored higher on both the stigma scale (2.89±.10 versus 2.31±.09; F=17.72, df=1 and 247, p<.001, Cohen's d=.54) and the barriers-to-care scale (2.47±.08 versus 2.08±.07; F=12.57, df=1 and 247, p<.001, Cohen's d=.45) and were more likely to endorse nearly all of the stigma items (odds ratios [ORs]=2.10–4.15) and barriers-to-care items (ORs=3.58–5.45). [A table showing the ORs for the stigma items and barriers to care is available as an online supplement to this brief report at ps.psychiatryonline.org.] In post hoc analyses only PTSD emerged as a significant predictor of both stigma (F=5.35, df=1 and 239, p=.022) and barriers-to-care (F=8.63, df=1 and 236, p=.005) scores. Positive screens for depression, anxiety, and alcohol use disorders and the interactions of PTSD and these diagnoses were not significant.

Table 1 shows the hierarchical regression results of predictors of stigma and barriers-to-care scores. Steps 2, 3, and 4 were significantly associated with both total stigma and barriers-to-care scores; results did not change if steps 2 and 4 were reversed. Unit support and negative beliefs about mental health care emerged as significant predictors of stigma and barriers-to-care scores.

Post hoc regression analyses examined which specific beliefs about mental health care were associated with stigma and barriers to care. The beliefs "Therapy is not effective for most people" and "Therapy is a sign of weakness" predicted increased stigma (F=48.99, df=6 and 247, p<.001; β=.14, t=2.53, p=.012, and β=.62, t=10.69, p<.001, respectively) and barriers to care (F=17.43, df=6 and 243, p<.001; β=.26, t=3.67, p<.001, and β=.32, t=4.53, p<.001, respectively). The other items, which included beliefs about psychotropic medications, were not associated with stigma or barriers to care.

Sixty-six (26%) respondents reported having a mental health counseling visit in the past six months, and 40 (15%) reported having a visit for mental health medication in the past six months. PTSD was positively associated with counseling (OR=10.69, 95% confidence interval [CI]=2.97–38.39) and medication visits (OR=28.21, CI=4.30–185.30). Negative beliefs about mental health care were negatively associated with a counseling visit (OR=.83, CI=.72–.95) and medication visit (OR=.69, CI=.56–.85). None of the other independent variables—which were the same as those in hierarchical regression analyses of stigma and barriers to care—were significant in these models. Post hoc analyses suggested that the odds of a counseling visit were greater for respondents who endorsed the belief "Medication for anxiety and depression does not help" (OR=1.55, CI=1.09–2.24) and that the odds of a medication visit were greater for those who endorsed the belief "Anxiety and depression can be improved with medication" (OR=1.78, CI=1.17–2.69); none of the other beliefs were significant.

Discussion and conclusions

This study replicated results of a previous investigation (1), which found

that OEF-OIF veterans who met screening criteria for a psychiatric disorder were more likely than veterans who did not meet these criteria to perceive increased stigma and barriers to mental health care. Results of this study extend those findings to suggest that negative beliefs about mental health care, particularly psychotherapy, and decreased perceptions of unit support are also associated with increased stigma and barriers to care and that negative beliefs about mental health care are associated with decreased likelihood of mental health counseling and medication services utilized in the previous six months.

Veterans who screened positive for a psychiatric disorder scored higher on the measures for stigma and barriers to care and were more likely to endorse nearly all of the items that constitute these measures. The stigma and barriers-to-care items most strongly associated with screening positive for a psychiatric disorder were embarrassment, being perceived as weak, not knowing where to get help, and having difficulty scheduling an appointment. These results suggest that stigma and barriers to mental health care could be reduced by teaching soldiers and their families, as well as military leaders, to understand that combat stress reactions are normal and expected responses to abnormal situations, rather than signs of psychopathology. They also underscore the need for ample and easily accessible mental health services for OEF-OIF veterans.

Negative beliefs about mental health care and unit support were associated with stigma and barriers to care in multivariate analyses. Negative beliefs were also associated with decreased likelihood of utilization of mental health counseling and medication services in the previous six months. Negative public perceptions about mental health care in general may promote, at least in part, the internalization of negative beliefs about mental health treatment, which may increase perceptions of stigma and reduce self-esteem and motivation to seek help (12).

Unit support is also important for the psychological well-being of soldiers. Low levels of unit support have been associated with depression and PTSD among Gulf War veterans (13) and with PTSD among veterans of the conflict in Iraq (14). High unit support and organizational support also promote positive mood, job performance and satisfaction, and organizational commitment in civilian work settings (15).

The results of this study have several practical implications. Most important, negative beliefs about mental health care, particularly psychotherapy, and unit support are potentially modifiable risk factors for stigma, barriers to mental health care, and low mental health care utilization. Negative beliefs about psychotherapy are often based on stereotypes and lack of accurate information about evidence-based psychotherapies for combat-related psychiatric disorders. Recent cognitive-behavioral and exposure-based treatments have been shown to be highly effective for trauma-related symptoms and disorders, and unlike some other psychotherapies, they are time limited, practical, solution focused, and based on building new skills and attributes, which may appeal to young individuals in the military. Educating soldiers about the nature and effectiveness of these interventions may help decrease stigma and barriers to mental health care and promote treatment-seeking behaviors.

These findings also suggest that increasing unit support may help decrease stigma and barriers to mental health care, which in turn may improve unit psychological health, enhance military functioning, and increase retention of soldiers. Teaching military leaders about the benefits of unit support and its association with psychological health and optimal military functioning may help motivate them to actively work on enhancing support for their soldiers. Delivery of mental health services in primary care settings and confidential psychological counseling may also help decrease stigma associated with treatment seeking in this population.

Methodological limitations of this study include a relatively low survey return rate, possible response bias, limited generalizability to the relatively older and predominantly National Guard and reservist sample of OEF-OIF veterans, and use of screening instruments to assess psychopathology. Whether these results will generalize to larger, more diverse samples of OEF-OIF veterans when diagnostic instruments are used remains to be examined. Also, the overlap between items assessing beliefs about mental health care and stigma (in regard to being perceived as "weak") may explain, at least in part, some of the strong associations observed between these variables. However, the finding that negative beliefs about mental health care were associated with decreased likelihood of mental health care utilization underscores the importance of this measure.

Future research should examine the generalizability of these findings to larger, more representative samples of OEF-OIF veterans, develop and test the effectiveness of interventions designed to bolster unit support and modify negative beliefs about psychotherapy and their effect on treatment-seeking behaviors in military populations, and further assess whether negative beliefs about mental health care predict mental health care utilization, retention, and outcomes.

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